

Dr. ERICA BISESI

Contact

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SHORT BIOGRAPHY

Erica Bisesi's academic track is multidisciplinary: PhD in mathematics and physics at Udine University in 2007, MSc in astroparticle physics at Trieste University in 2002, MA Degree in piano performance at Trieste Conservatory in 1996 and MMus in music theory and analysis at the University of Calabria / GATM (in progress). Born in Gorizia (Italy), she contributed to several large-scale research projects (systematic musicology, music interpretation and analysis, biological foundations of music, astrobiology, theoretical astrophysics, experimental elementary particle physics, history of physics, physics and music education).

Her career as a musicologist began in 2007, first at the Department of Speech, Music and Hearing at KTH, Stockholm, and then in several projects on the psychology of music, psychoacoustics, expressive music performance, music theory and analysis, and music information retrieval. She directed or participated in several projects on the systematic musicology at the Centre of Systematic Musicology at the University of Graz (2009-2016) and the Royal Institute of Technology in Stockholm (2016-2017). She is currently researcher at the Institut Pasteur in Paris (from 2017), where she is working in Intermuse, an interdisciplinary project on the biology and anthropology of music cognition and neurosciences.

She taught acoustics and psychoacoustics at the Udine Conservatory from 2004 to 2007, psychoacoustics and music cognition at the University of Graz from 2014 to 2015, introduction to acoustics and organology, music structure, expression and emotion at the Comenius University in Bratislava in 2017, and is active as lecturer in computational methods for music analysis at the University of Montreal (from 2018).

Erica collaborated with universities and conservatoires in Armenia (State Conservatory in Yerevan, National Academy of Sciences of the Republic of Armenia, Komitas Museum-Institute in Yerevan), Austria (KFU, KUG), Canada (Faculty of Music of the Montreal University, OICRM, BRAMS), Finland (Finnish Centre of Excellence in Interdisciplinary Music Research in Jyväskylä), France (Institut Pasteur, SFAM, EHESS, CNRS and IRCAM in Paris, IRMA and GREAM in Strasbourg), Italy (GATM, Fondazione Istituto Liszt in Bologna, Associazione Seghizzi in Gorizia, Conservatoires

of Udine, Trieste, Como and Novara, Universities of Udine, Padua and Bologna), Slovakia (Department of Musicology at the Bratislava University), Sweden (KTH), Switzerland (CSI in Lugano). In October 2009, Erica was awarded a Lise Meitner postdoctoral fellowship for a two-year project entitled “Measuring and Modeling Expression in Piano Performance” by FWF Austria. In December 2011, FWF funded her five-year Stand-Alone project “Expression, Emotion and Imagery in Music Performance”. She presented the results of her research in conferences, lectures and lecture-recitals at leading institutes all over the world.

Her career as a pianist began at the age of five. She began studying Piano Performance with Maura Soro in Gorizia (Lower Degree, 1986), and then continued with Roberto Repini in Trieste (MA Degree, 1996). Over the following ten years, she mastered with the conductor Francesco Mander in Latisana, the pianists Bruno Canino in Milan, Florence and Switzerland, Aquiles Delle Vigne in Salzburg, Florence and Rome, Vladimir Krpan in Zagreb, Anna Kravtchenko in Rovereto, and Andreas Woyke in Graz. She regularly performs as a soloist and in chamber music ensembles.

During the last years, she dedicated a special attention to combine her research activity with performance practice. In 2017, she participated as a concert pianist in a GATM project on music performance/interpretation and music analysis (Conservatory of Novara, 2016-2017; International Conferences on Music Theory and Analysis in Strasbourg and Rimini, 2017). Her current research lies mainly in the area of computational and systematic musicology, music psychology, music cognition, psychoacoustics, anthropology of music, music information retrieval, music performance and interpretation, expression and emotion, music theory and analysis, ethnomusicology, with a special attention to the application of the results of her studies in music education. In her research, she usually investigates the structure, historiography, perception and expression of her concert repertoire.

Erica speaks fluently five languages. Fortunately for her life and her work, she loves to move.

ACADEMIC CURRICULUM VITAE (detailed)

Main area of research

Last 10 years: Systematic musicology: music modeling (computer-assisted music theory), music theory and analysis, acoustics, music information retrieval, expressive music performance (theory, data analysis, applications), psychology and perception of music, music and emotion, music cognition, psychoacoustics and psychophysics, empirical aesthetics; interdisciplinary musicology (synergetic interactions among humanities, sciences and practice); ethnomusicology (Armenian music); anthropology of music, biological foundations of music; applications in music education; astrobiology.

Previously: particle physics, astrophysics, cosmology, physics education.

Academic career and positions held to date

Research positions:

1. 2019 Jan 7 – 2019 Mar 31; 2018 Jun 1 – 2018 Aug 31: 6-month position as researcher in Music Cognition at the Institut Pasteur, Paris (funded by SACEM)
Project: INTERMUSE – “Fondements communs à l’écoute musicale et à la mise en place de la communication humaine inter-individuelle”¹
<https://research.pasteur.fr/en/project/intermuse/>
Advisor: Pierre Legrain
2. 2018 Dec 1 – 2018 Dec 31: 1-month position as researcher in Astrobiology at the CNR, Pisa
Project: “Studio dello spazio dei parametri di un sistema di equazioni differenziali accoppiate alle derivate parziali, che rappresentano un semplice modello di crescita della vegetazione e un modello climatico”²
Advisor: Antonello Provenzale
3. 2017 Nov 1 – 2017 Nov 30: 1-month position as researcher in Computational Musicology of Music Performance at the KTH - Department of Speech, Music and Hearing, Stockholm
Project: “A perceptual-based accent model in Western tonal music”
Advisor: Anders Friberg
4. 2017 Mar 1 – 2017 Jul 31: 5-month position as lecturer at the Department of Musicology – Faculty of Arts, Comenius University, Bratislava, Slovakia (scholarship funded by SAIA, Slovakia)
Courses: Introduction to Acoustics and Organology; Music Structure, Expression and Emotion
Advisor: Vladimir Zvara
5. 2016 Nov 1 – 2017 Feb 28: 4-month position as researcher in Computational Musicology of Music Performance at the KTH - Department of Speech, Music and Hearing, Stockholm
Project: “A perceptual-based accent model in Western tonal music”
Advisor: Anders Friberg

¹ EN: “Commonalities [and individual] differences in music listening and in the establishment of interpersonal communication”

² EN: “Parameter space study of a system of partial derivative differential equations, representing a simple growth model coupled to a climatic model”

6. 2012 Mar 1 – 2015 Jul 31; 2015 Sep 1 – 2015 Dec 31: 3.75-year position as senior postdoctoral researcher in Music Psychology and Music Performance at the Centre for Systematic Musicology, University of Graz, funded by FWF
Project: FWF Stand-Alone Project P 24336 – G21 “Expression, emotion and imagery in music performance”
Project leader: Erica Bisesi / Advisor: Richard Parncutt
7. 2009 Dec 1 – 2011 Nov 30: 2-year position as postdoctoral researcher in Music Psychology and Music Performance at the Centre for Systematic Musicology, University of Graz, funded by FWF
Project: FWF Lise-Meitner Project M 1186 – N23 “Measuring and modelling expression in piano performance”
Project leader: Erica Bisesi / Advisor: Richard Parncutt
8. 2008 Nov 15 – 2008 Dec 31: 1.5-month postdoctoral research in Physics Education at the Department of Physics (now the Department of Mathematics, Computer Science and Physics), Udine University, Italy (scholarship by the Department of Physics, Udine University)
Advisor: Marisa Michellini
Project: “Proposte didattiche sul concetto di tempo in fisica classica e nella relatività ristretta e generale” ³
9. Apr – Jul 2007: 3-month postdoctoral research in Computational Psychoacoustics at KTH, Stockholm (“Scholarship in Scientific Disciplines” offered by the Italian Institute of Culture “C.M. Lerici” in Stockholm)
Advisor: Roberto Bresin
Main research activity: (i) participation in an experiment on the perception of expressiveness in musical performance within the EU project *BrainTuning* (experiment preparation, measuring and data analysis), (ii) computational modeling of structural and performance aspects of music, theoretical models vs. analysis of commercial performances
10. Nov 2003 – Feb 2007: active member (as PhD student) of the “MAGIC Collaboration” in experimental physics – <http://www.magic.mppmu.mpg.de/>
Advisor: Alessandro De Angelis
11. Apr-Sep 2003: postgraduate research in Astroparticle Physics (scholarship offered by INFN)
Advisor: Guido Barbiellini Amidei

Teaching Positions:

1. March 2018 (in French): (i) *Analyse et interprétation*, ⁴ Master and Doctorate in Music Interpretation and in Musicology, and (ii) *Analyse de la musique du XXe siècle*, ⁵ Bachelor in Music (Performance, Composition and Musicology), Faculty of Music, Montreal University, Canada
2. Summer Semester 2017 (in English): (i) *Úvod do hudobnej akustiky a organológie* ⁶ and (ii) *Music Structure, Expression and Emotion*, Bachelor and Master in Musicology, Comenius University in Bratislava, Slovakia

³ EN: “Educational proposals on the concept of time in classical physics and in special and general relativity”

⁴ EN: “Analysis and interpretation”

⁵ EN: “Analysis of the 20th-century music”

3. Summer Semesters 2015 and 2014 (in English / exams in English and German): *Psychoakustik und Musikerkennung*,⁷ Bachelor in Musicology, University of Graz, Austria
4. Sep 2008 – Jul 2009 (in English): *Physics in English*, European Linguistic Liceo in Gorizia, Italy
5. 2007–2008 (in Italian): contract professor, *Laboratorio di Meccanica (La Fisica della Musica)*,⁸ SSIS (Post-Master Specialization School for Secondary Teaching, physics) at Udine University, Italy
6. 2004-2007 (in Italian): contract professor (as external expert), *Acustica e Psicoacustica*,⁹ Udine Music Conservatory, Triennio and Biennio Superiore Sperimentale (i.e., Bachelor and Master Degrees), Udine, Italy

Most important academic prizes/awards

1. National Scholarship offered by the SAIA (Slovakia) for 5-month teaching/research/artistic stay for university teachers, researchers and artists with more than 10 years of experience (Jun 2016, 5 k€)
2. Scholarship offered by GATM (Italy) to attend a 1-year Master in Music Theory and Analysis at the University of Calabria (Oct 2014, 750 €)
3. Stand-Alone Project Fellowship (FWF Project P 24336-G21) for a 3.75-year research project at Graz University, Austria, with collaborators Richard Parncutt, Anders Friberg, Petri Toiviainen, Giuseppe Cabras and Jennifer MacRitchie (Dec 2011, 263 k€)
4. Lise Meitner Fellowship (FWF Project M 1186-N23) for a 2-year research project at Graz University, Austria, with collaborators Richard Parncutt and Anders Friberg (Oct 2009, 145 k€)
5. Scholarship in scientific disciplines offered by the Italian Institute of Culture C. M. Lerici, Stockholm, Sweden, for 3-month research at KTH, Stockholm, with collaborators Roberto Bresin and Anders Friberg (Oct 2006, 41 kSEK)
6. Scholarship on Physics Education for 1.5-month research at Udine University, Italy, with collaborator Marisa Michelini (Nov 2008, 2 k€)
7. Graduate scholarship INFN for 6-month research at SISSA, Trieste, Italy, with collaborator Piero Ullio (Nov 2002, 4.2 k€)
8. *The 2004 CERN-JINR European School of High-Energy Physics* prize for the best poster presentation (Jun 2004)

Peer-review activity

Journal of New Music Research (2017, 2016, 2013); Psychomusicology: Music, Mind, and Brain (2105), Revue Musicale OICRM (2019), Musique en acte – GREAM (2019)

Name and institution of key international cooperation partners in the last 10 years

Armenia: Mher Navoyan, Tatevik Shakhkulyan (Komitas State Conservatory in Yerevan, Institute of Arts of the National Academy of Sciences of the Republic of Armenia, Komitas-Museum Institute). *Australia:* Jennifer MacRitchie (University of Western Sydney). *Austria:* Richard Parncutt, Bernd Brabec de Mori, Marlies Bodinger, Andreas Fuchs, Florian Eckl, Sabrina Sattmann (Center for Systematic

⁶ EN: “Introduction to Music Acoustics and Organology”

⁷ EN: “Psychoacoustics and Music Cognition”

⁸ EN: “Laboratory of Mechanics – The Physics of Music”

⁹ EN: “Acoustics and Psychoacoustics”

Musicology, KFU, Graz); Christian Utz, Dieter Kleinrath, Andreas Woyke, Yuko Chiba (Kunstuniversität Graz); Daniel Mayer (Institute for Electronic Music and Kunstuniversität Graz); Sarah Kettner (Veranstaltungen Musik- und Kunstschule, Leoben). *Canada*: Sylvain Caron (University of Montreal, OICRM and SFAM); Caroline Traube (University of Montreal, OICRM and BRAMS). *Finland*: Petri Toiviainen (University of Jyväskylä). *France*: Pierre Legrain (Institut Pasteur, Paris); Alain Letailleur (École des hautes études en sciences sociales – EHESS); Moreno Andreatta (IRCAM, CNRS, University of Strasbourg and SFAM); José Luis Besada, Corentin Guichaoua (University of Strasbourg). *Hungary*: László Stachó (Liszt Music Academy, Budapest; University of Szeged). *Italy*: Mario Baroni (University of Bologna; Fondazione Istituto Liszt in Bologna, GATM); Rossana Dalmonte (Fondazione Istituto Liszt in Bologna, GATM); Sergio Canazza, Nicola Orio, Antonio Rodà (Department of Information Engineering, University of Padova); Giuseppe Cabras, Marisa Michelini (Department of Mathematics, Computer Science and Physics, University of Udine); Giovanni Bruno Vicario (Department of Philosophy, University of Udine); Natale Stucchi (Faculty of Psychology, University of Milano Bicocca); Giorgio Blasco (Trieste Flute Association, previously Conservatory of Trieste); Irene Gratton (Faculty and Department of Psychology, University of Trieste; Conservatory of Trieste); Simonetta Sargenti (Conservatories of Novara and Pesaro); Antonio Grande (Conservatory of Como, GATM); Alberto Odone (Conservatory of Como); Ennio Francescato (Conservatory of Udine); Gianluca Di Donato (Istitute “Conservatorio delle Oblate”, Avellino; Associazione Mozart Italia); Giuseppe Murante, Juan Vladilo, Steno Ferluga, Massimo Ramella (National Institute for Astrophysics; University of Trieste); Antonello Provenzale (CNR, Pisa); Italo Montiglio (Associazione Seghizzi, Gorizia); Juan Arias Gonano (Associazione Culturale Lapis, Gorizia); Elena Stolfo (Middle School of Mariano del Friuli); Sara Hennah Galíza (Accademia Teatrale Veneta, Venezia). *Slovakia*: Zuzana Cenkerova, Vladimir Zvara (Comenius University, Bratislava). *Sweden*: Anders Friberg (Department of Speech, Music and Hearing, KTH, Stockholm). *Switzerland*: Jennifer MacRitchie (Conservatory of Italian Switzerland, Lugano). *United Kingdom*: Luke Windsor (University of Leeds). *United States*: David Temperley (Eastman School of Music, Rochester, NY).

Qualifications

1. In progress: First-Degree Master in Music Theory and Analysis at the University of Calabria and GATM (Italy).
Courses: harmony, counterpoint, Schenkerian analysis, theory and analysis of classical form, partimenti and schemata, neo-Riemannian theories, pitch-class set theory, analysis of atonal music (early '900, Schoenberg, Stravinsky), analysis of Medieval and Renaissance repertoires, music perception and cognition, generative theory, analysis of performance, analysis and new technologies, ethnomusicology, analysis of Jazz and Afro-American traditions, analysis of pop-music, historiography, semiotics, hermeneutics and cultural studies. Master Thesis on neo-Riemannian and transformational theories.
 Graduation planned by the end of 2019.
2. 2007 Feb 23: Doctorate (PhD) in Mathematics and Physics (computational and experimental directions) at Udine University, in collaboration with INFN (Italian Institute of Nuclear Physics), SISSA (International Superior School of Advanced Studies) in Trieste, and Stockholm University (advisor Lars Bergström)

PhD. Thesis: *Indirect search of dark matter in the halos of galaxies. Role of substructures on the signals from dark matter annihilation and prospects for detection of single dark matter clumps with the MAGIC Telescope*

Advisors: Alessandro De Angelis and Massimo Persic

3. 2002 May 30: Master (MSc) in Elementary Particle Physics at Trieste University, in collaboration with INFN, SISSA, Trieste, and CNR (Italian National Council of Research), Milano

Master Thesis: *Emissione gamma dalle pulsar. Stima del contributo al fondo gamma diffuso e possibili osservazioni con i telescopi spaziali AGILE e GLAST*¹⁰

Additional dissertations for graduation defence: (1) *Analisi dell'attività sismica ai fini conoscitivi e previsionali dell'attività eruttiva: Il caso dello Stromboli*;¹¹ (2) *Il principio di causalità. Determinismo classico, indeterminismo quantistico e caos deterministico*¹²

Advisors: Guido Barbiellini Amidei and Luciano Rezzolla

Grade: 102/110

4. Oct 2001 - Jun 2003: Music and New Technologies Undergraduate School, Trieste Conservatory

Topics: acoustics, psychoacoustics, neurophysiology of music, electroacoustics, signal processing, history, analysis, composition and performance of electroacoustics music, history of 20th century music

Not completed

5. 1996 Oct 22: MA in Piano Performance at Trieste (Italy) at Trieste Music Conservatory

Advisor: Roberto Repini

Grade: 8.25/10

Graduate Schools:

1. *Statistical Methods for Behavioural Science*, KTH-Stockholm, Sweden, Summer Semester 2017
2. *Summer School in Sound and Music Computing*, KTH-Stockholm, Sweden, 2-6 Jul 2007
Topics: neurosciences and music, mobile music and locative audio technology, sound and music computing in Europe, presentations and discussions with experts in industrial sector, mini-project "CLOSED"
3. *International Advanced Course on Musical Acoustics*, Bologna University, Italy, 18-22 Jul 2005
Topics: fundamentals of acoustics and wind instruments, vibration and fundamental of modal analysis and percussion instruments, string instruments, restoration and conservation of musical instruments, sound synthesis and physical methods applied to musical instruments, room acoustics and advanced experiments
4. The 2004 *CERN-JINR European School of High-Energy Physics*, Sant Feliu de Guíxols, Barcelona, Spain, 30 May – 12 Jun 2004
5. *Summer School NOVICOSMO 2005*, Novigrad, Croatia, 5-17 Sep 2005
6. Jul 2005: visiting student at Max Planck Institut für Physik – Werner Heisenberg Institut, München, Germany

¹⁰ EN: *Gamma-ray emission from pulsars. Estimation of the contribution of pulsars to the gamma-ray background and possible observations with the space telescopes AGILE and GLAST*

¹¹ EN: *Analysis of seismic activity for the purpose of knowing and forecasting eruptive activity: The case of Stromboli*

¹² EN: *The principle of causality. Classical determinism, quantum indeterminism and deterministic chaos*

7. Jan 2006 – Mar 2006: *Graduate School of Cosmology, Particle Astrophysics and Strings*, Stockholm University Fysikum, Sweden

Participation in Piano Master Classes (selection):

1. *Piano perfecting* at Graz, Austria, 2012-2014 (Advisor: Andreas Woyke, DE)
2. *Piano perfecting* in Rovereto, Italy, 2006-2007 (Advisor: Anna Kravtchenko, UA)
3. *Advanced Course in Piano Perfecting*, Marziali Academy, Seveso, Italy, 2005-2006 (Advisor: Bruno Canino, IT)
4. *International Piano Master Class*, Ernen, Switzerland, 22-27 Aug 2005 (Advisor: Bruno Canino, IT)
5. *Piano Masterclasses, Amici della Musica di Firenze*, Italy, 5-8 Jun 2005 and 6-10 Dec 2003 (Advisor: Bruno Canino, IT)
6. *Music Academy*, Zagreb, Croatia, 2001-2003 (Advisor: Vladimir Krpan, HR)
7. *EPTA International Piano Summer School*, Dubrovnik, Croatia, 23 Jul – 13 Aug 2002 (Advisor: Pavica Gvozdič, HR)
8. *Studying music interpretation and the repertoire for piano and orchestra*, Latisana, Italy, 2001-2005 (Advisor: Francesco Mander, IT)
9. *Post-Diploma Course in Piano Interpretation*, Mednarodni center za glasbo in umetnost, ¹³ Gorizia, Italy, Oct - Dec 2000 (Advisor: Sijavuš Gadjev, RU)
10. *School of High Perfecting in Piano Performance*, Il Trillo, Firenze, Italy, 2003-2004 (Advisor: Aquiles Delle Vigne, AR)
11. *Internationale Sommerakademie Mozarteum*, Salzburg, Austria, 19-31 Jul 1999 (Advisor: Aquiles Delle Vigne, AR)
12. *Biennial Course of Piano Performance*, Musici Artis, Roma, Italy, 1998-2000 (Advisor: Aquiles Delle Vigne, AR)

Computing

Platforms: Windows, Unix, OsX and MacOS, Linux, Android

Basics: Microsoft Office (Word, Excel, Powerpoint, Publisher), Internet (HTML, Dreamweaver)

Programming: Matlab, Idl, Fortran 77, Python (basics)

Audio Technology: MIR and MIDI Toolbox, Sonic Visualizer, Raven, Pd (basics), Csound, Audacity, Cooledit, Wavelab, Cubase, Muscore, Finale, XML (basics)

Computational Music Analysis: Humdrum, AthenaCL, Acousmographe, EAnalysis, iAnalyse

Video Technology: Vegas

Graphics: Qtiplot, Paw, Gimp

Experimental control programs for psychology: Psychopy, Presentation

Statistical Analysis: SPSS, R, Statistica, Xlstat

Qualitative analysis: Maxqda, QDA Miner, WordStat, Rqda

Text Processing: Latex

Languages

Native speaker: Italian

¹³ EN: International Center for Music and Art

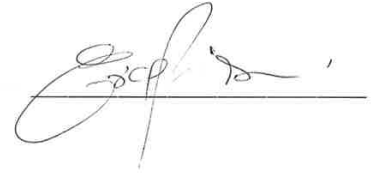
Fluent: English, French, Spanish

Intermediate: German

Basics: Swedish

Some knowledge: Portuguese, Russian

(updated on 30.8.2019)

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PUBLICATION LIST

Open access to publications (when available) at:

<http://www.ericabisesi.com/english/science/publications.htm>

(password for protected files: `valkiria12`)

<https://www.kth.se/profile/bisesi>

* Peer-reviewed journal articles and book chapters are marked with a single asterisk.

** Proceedings contributions based on peer-reviewed abstracts are marked with a double asterisk.

Works published within the last 5 years are highlighted in bold.

5 MOST RELEVANT PUBLICATIONS

1. Friberg, A., Bisesi, E., Addessi, A.R., & Baroni, M. (2019). Probing the underlying principles of perceived immanent accents using a modeling approach. *Frontiers in Psychology – Section Performance Science*, 10 (1024). DOI: 10.3389/fpsyg.2019.01024 *
2. Bisesi, E., Friberg, A., & Parncutt, R. (2019). A computational model of immanent accent salience in tonal music. *Frontiers in Psychology – Section Performance Science*, 10 (317). DOI: 10.3389/fpsyg.2019.00317 * (cited by 1)¹⁴
3. Bisesi, E. & Windsor, W. L. (2016). Expression and communication of structure in music performance: Measurements and models. In *Oxford Handbook of Music Psychology*, 2nd Ed. (pp. 615-631). DOI: 10.1093/oxfordhb/9780198722946.013.37. Oxford: OUP *
4. Friberg, A. & Bisesi, E. (2014). Using computational models of music performance to model stylistic variations. In *Expressiveness in music performance: Empirical approaches across styles and cultures* (pp. 240-259). DOI: <http://dx.doi.org/10.1093/acprof:oso/9780199659647.003.0014>. Oxford: OUP *
5. Bisesi, E. & Parncutt, R. (2011). An accent-based approach to automatic rendering of piano performance: Preliminary auditory evaluation. *Archives of Acoustics*, 36 (2), 283-296. DOI: 10.2478/v10168-011-0022-z * (cited by 7)

PEER REVIEW ARTICLES

Music Psychology

Psychology of Expressive Performance

1. Friberg, A., Bisesi, E., Addessi, A.R., & Baroni, M. (2019). Probing the underlying principles of perceived immanent accents using a modeling approach. *Frontiers in Psychology – Section Performance Science*, 10 (1024). DOI: 10.3389/fpsyg.2019.01024 *

¹⁴ Based on the SCOPUS database, updated on August 14th 2019.

2. Bisesi, E., Friberg, A., & Parncutt, R. (2019). A computational model of immanent accent salience in tonal music. *Frontiers in Psychology – Section Performance Science*, 10 (317). DOI: 10.3389/fpsyg.2019.00317 * (cited by 1)
3. Bisesi, E. & Parncutt, R. (2011). An accent-bed approach to automatic rendering of piano performance: Preliminary auditory evaluation. *Archives of Acoustics*, 36 (2), 283-296. DOI: 10.2478/v10168-011-0022-z (cited by 7) *

Psychology of Musical Tempo

4. Bisesi, E. & Vicario, G.B. (2009). Factors affecting the choice of performed tempo, *British Postgraduate Musicology*, 10 *

Fundamental Physics

5. Bisesi, E. (2007). The impact of subhalos on the signals from dark matter annihilations. *Astrophysics and Space Science*, 309 (1-4), 517-522. DOI: 10.1007/s10509-007-9405-z *

Experimental Physics

6. D. Bastieri et al. (16 authors including E. Bisesi) (2005). Using the photons from the Crab nebula seen by GLAST to calibrate MAGIC and the imaging air Cerenkov telescopes. *Astroparticle Physics*, 23 (6), 572-576. DOI: 10.1016/j.astropartphys.2005.05.002 (cited by 13) *
7. M. Brigida et al. (27 authors including E. Bisesi) (2006). Particle identification with the Silicon Transition Radiation Detector (SiTRD): State of art and future perspectives. *Nuclear Instruments and Methods in Physics Research Section A*, 563 (2), 388-391. DOI: 10.1016/j.nima.2006.02.155 * (cited by 1)
8. A. Albano et al. (40 authors including E. Bisesi) (2004). Scientific motivations and technical proposal for a stereoscopic MAGIC telescope (MAGIC II) in La Palma. *MAGIC Internal document*

MAGIC collaboration publications

9. J. Albert et al. (158 authors including E. Bisesi) (2006). Variable very high energy gamma-ray emission from the Microquasar LS I+61 303. *Science*, 312 (5781), 1771-1773. DOI: 10.1126/science.1128177 (cited by 353) *
10. J. Albert et al. (142 authors including E. Bisesi) (2006). Discovery of very high energy gamma-rays from Markarian 180 triggered by an optical outburst. *The Astrophysical Journal Letters*, 648 (2), L105-L108. DOI: 10.1086/508020 (cited by 92) *
11. J. Albert et al. (147 authors including E. Bisesi) (2006). Observation of VHE Gamma Radiation from HESS J1834-087/W41 with the MAGIC Telescope. *The Astrophysical Journal*, 643 (1), L53-L56. DOI: 10.1086/504917 (cited by 49) *

12. J. Albert et al. (132 authors including E. Bisesi) (2006). Discovery of very high energy gamma rays from 1ES 1218+30.4. *The Astrophysical Journal*, 642 (2), L119-L122. DOI: 10.1086/504845 (cited by 100) *
13. J. Albert et al. (130 authors including E. Bisesi) (2006). Flux upper limit of gamma-ray emission by grb050713a from magic telescope observations. *The Astrophysical Journal*, 641 (1), L9-L12. DOI: 10.1086/503767 (cited by 50) *
14. J. Albert et al. (131 authors including E. Bisesi) (2006). Observation of gamma-rays from the Galactic Center with the Magic Telescope. *The Astrophysical Journal*, 638 (2), L101-L104. DOI: 10.1086/501164 (cited by 156) *
15. J. Albert et al. (134 authors including E. Bisesi) (2006). Magic observations of very high energy gamma-rays from HESS J1813-178. *The Astrophysical Journal*, 637 (1), L41-L44. DOI: 10.1086/500364 (cited by 39) *
16. J. Albert et al. (129 authors including E. Bisesi) (2006). Observation of VHE gamma-ray emission from the active galactic nucleus 1ES-1959+650 using the Magic Telescope. *The Astrophysical Journal*, 639 (2), 761-765. DOI: 10.1086/499421 (cited by 60) *
17. J. Albert i Fort et al. (103 authors including E. Bisesi) (2006). Physics and astrophysics with a ground-based gamma-ray telescope of low energy threshold. *Astroparticle Physics*, 23 (5), 493-509. DOI: 10.1016/j.astropartphys.2005.03.005 (cited by 11) *

BOOK CONTRIBUTIONS

Music Performance

18. Bisesi, E. & Windsor, W. L. (2016). Expression and communication of structure in music performance: Measurements and models. In S. Hallam, I. Cross and M. Thaut (Eds.), *Oxford Handbook of Music Psychology, 2nd Edition* (pp. 615-631). Oxford: Oxford University Press. DOI: 10.1093/oxfordhb/9780198722946.013.37 *
19. Friberg, A. & Bisesi, E. (2014). Using computational models of music performance to model stylistic variations. In D. Fabian, E. Schubert and R. Timmers (Eds.), *Expressiveness in music performance: Empirical approaches across styles and cultures* (pp. 240-259). Oxford: Oxford University Press. DOI: <http://dx.doi.org/10.1093/acprof:oso/9780199659647.003.0014> *

Music Analysis and Performance

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23. Shakhkulyan, T., Bisesi, E. & Parncutt, R. (2017). David of Sassoun: The tonal structure of Armenian epic songs. In T. Shakhkulyan (Ed.), *Komitas and traditional music culture – Yearbook of Komitas Museum-Institute, Vol. 2*. Yerevan: Publications of Komitas Museum-Institute. ISBN: 978-9939-9134-5-2

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25. Bisesi, E. & Michelini, M. (2010). Comparative teaching strategies in special relativity. In C. P. Constantinou and N. Papadouris (Eds.), *Physics Curriculum Design, Development and Validation*. Cyprus: Learning in Science Group. CD-ROM, ISBN: 978-9963-689-21-7 *

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26. Bisesi, E. (2012). The Alien | L'alieno. In A. Bianco (Ed.), *Otherness | Alterità* (pp. 57-66). Roma: Aracne. ISBN 978-88-548-5210-5

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27. Bisesi, E. (2017). Measuring and modelling perceived distance among collections in post-tonal music: Music theory meets music psychology. In *Proceedings of EUROMAC9*, Strasbourg, France, 28 Jun – 1 Jul 2017 **

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Psychology of Expressive Performance

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29. Bisesi, E., Parncutt, R., Caron, S., & Traube, C. (2014). The immanent emotion of a musical score: An exploratory study. In M. K. Song (Ed.), *Proceedings of the ICMPC13 – APSCOM-5*, Seoul, South Korea, 4-8 Aug 2014 (pp. 124-126). Seoul, South Korea: College of Music, Yonsei University **
30. Bodinger, M., Bisesi, E., & Parncutt, R. (2014). Listeners' informal vocabulary for structure, expression, emotions and associations in piano music. In M. K. Song (Ed.), *Proceedings of the ICMPC13 – APSCOM-5*, Seoul, South Korea, 4-8 Aug 2014 (pp. 76-79). Seoul, South Korea: College of Music, Yonsei University **
31. Eckl, F. J., Bisesi, E., Friberg, A., & Parncutt, R. (2014). A computational model of immanent accent salience in tonal music: Perceptual evaluation. In M. K. Song (Ed.), *Proceedings of the ICMPC13 – APSCOM-5*, Seoul, South Korea, 4-8 Aug 2014 (pp. 248-250). Seoul, South Korea: College of Music, Yonsei University **
32. Bisesi, E., MacRitchie, J., & Parncutt, R. (2013). Structural communication in piano duos: Musical compatibility and individual differences in interpretation. In A. Williamon and W. Goebel (Eds.), *Proceedings of the International Symposium on Performance Science*, Vienna, Austria, 28-31 Aug 2013 (pp. 263-268). Brussels, Belgium: European Association of Conservatoires (AEC). ISBN: 978-2-9601378-0-4 **
33. Parncutt, R., Bisesi, E., & Friberg, A. (2013). A preliminary computational model of immanent accent salience in tonal music. In R. Bresin (Ed.), *Proceedings of Sound and Music Computing Conference SMAC – SMC 2013*, Stockholm, Sweden, 30 Jul – 3 Aug 2013 (pp. 335-340). Stockholm: KTH. ISBN: 978-91-7501-831-7 **
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35. Bisesi, E., MacRitchie, J., & Parncutt, R. (2012). Recorded interpretations of Chopin Preludes: Performer's choice of score events for emphasis and emotional communication. In E. Cambouropoulos et al. (Ed.), *Proceedings of ICMPC – ESCOM 2012*, Thessaloniki, Greece, 23-28 Jul 2012 (pp. 106-107). ISBN: 978-960-99845-1-5 **
36. Bisesi, E., Friberg, A., & Parncutt, R. (2011). Director Musices (accent-based formulation). In *Proceedings of Rencon 2011*, Padova, 6 Jul 2011
37. Bisesi, E., Parncutt, R., & Friberg, A. (2011). An accent-based approach to performance rendering: Music theory meets music psychology. In *Proceedings of the International Symposium*

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Education

Music Education

41. Bisesi, E. & Michelini, M. (2010). Planning curricular proposals on sound and music with perspective secondary-school teachers. In C. Constantinou and N. Papadouris (Eds.), *Proceedings of Physics Curriculum Design, Development and Validation – GIREP 2008* (CD). Cyprus: Learning in Science Group. ISBN: 9963689205, 9789963689200 **

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42. Bisesi, E. (2007). Indirect search of dark matter in the halos of galaxies. Role of substructures on the signals from dark matter annihilation and prospects for detection of single dark matter clumps with the MAGIC Telescope. *PhD Thesis. Magic Publications*
43. Bisesi, E. (2002). Emissione gamma dalle pulsar. Stima del contributo al fondo gamma diffuso e possibili osservazioni con i telescopi spaziali AGILE e GLAST. *MSc Thesis*. In: *Tesi di Laurea e di Dottorato INFN*

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44. Bisesi, E., Mariotti, M., & Scalzotto, V. (2006). Dark matter detection in gamma astroparticle experiments. In G. Sidharth, F. Honsell and A. De Angelis (Eds.), *Proceedings of 6th International Symposium on Frontiers of Fundamental Physics (FFP6)*, Udine, Italy, 26-29 Sep 2004 (pp. 315-320). Springer, The Netherlands **
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PUBLICATIONS IN PREPARATION (PEER-REVIEW)

1. Letailleux, A., Bisesi, E., & Légrain, P. *The mental representations used by musicians to identify notes' pitch: Description of mental anchorpoints and a proposal for a minimal phenomenological model* (under submission)

2. Bisesi, E. & Sargenti, S. *I preludi per pianoforte di Olivier Messiaen, tra rigore compositivo ed espressività* (under submission)
3. Bisesi, E., Murante, G., & Caron, S. *Modeling the relationship between structure and meaning in “Les Dominos” by François Couperin by means of a machine learning approach* (submission planned by late 2019)
4. Caron, S., & Bisesi, E. *Analysis and interpretation of “Les Dominos” by François Couperin* (submission planned by late 2019)
5. Bisesi, E., & Toivianien, P. *The relationship between immanent emotion and musical structure in classical piano scores: A case-study on the theme of “La Folia”* (submission planned in 2020)
6. Bisesi, E. *Variations on the theme of “La Folia” by Carl Philipp Emanuel Bach and Franz Liszt: Analysis and interpretation* (submission planned in 2020)
7. Bisesi, E., Cabras, G., et al. *Measuring expressive piano performance by means of a Constant-Q transform-based method*
8. Bisesi, E., Friberg, A., et al. *Modeling performance styles in piano music*

INVITED CONFERENCE PRESENTATIONS

- E. Bisesi & S. Caron (2018). *Recherches sur la perception du tempo*, Observatoire Interdisciplinaire de création et de recherche en musique – OICRM, Université de Montréal, Canada, 23 Mar 2018; spoken presentation (SP)
- E. Bisesi (2017). *La perception du tempo optimal dans la musique* (‘Le tempo dans l’acte de performance’, MSH Dijon, Université de Bourgogne, France, 30-31 Mar 2017; SP)
- E. Bisesi & S. Caron (2017). *Partition, interprétation et perception du tempo* (Le tempo dans l’acte de performance, MSH Dijon, Université de Bourgogne, France, 30-31 Mar 2017; SP)
- E. Bisesi (2016). *Intuition in der Musikwissenschaft* (‘Intuition und Wissenschaft’, Grazer Universitätsmuseen, Austria, 10-11 Nov 2016; SP)
- E. Bisesi (2015). *Relazione tra struttura musicale ed emozioni lungo il percorso tonale da Schubert a Wagner, ultimo Liszt e primo Schoenberg* (‘Le emozioni e la percezione sensoriale’, Università Popolare di Gorizia, Italy, 25-27 Sep 2015; lecture recital (LR))
- E. Bisesi (2015). *Il percorso tonale da Schubert a Schoenberg: Un’analisi psicologica assistita dal computer* (‘Quadrivium: La musica all’incrocio dei saperi, XI Edition’, Conservatory of Como, Italy, 3 Mar 2015; LR)
- E. Bisesi (2014). *The tonal trajectory connecting Schubert, Wagner, Liszt and Schoenberg: A psychological, computer-based analysis* (‘2nd International Music Week’, Ljubljana Music Academy, Slovenia, 17-24 Nov 2014; LR)
- E. Bisesi & M. Ramella (2014), *Concerto per galassie e pianoforte* (‘Mi&Lab’, Teatro Miela, Trieste, Italy, 6 Nov 2014; multimedia show (MS))
- E. Bisesi (2009). *Il tempo e la sua misura* (‘Convegno delle Giornate di Diffusione della Cultura’, Udine University, Italy, 17 Mar 2009; SP)
- E. Francescato & E. Bisesi (2009). *Ricerche scientifiche sull’esecuzione musicale e relative applicazioni didattiche* (‘La Musica in testa. Tre giorni di scienza, musica e apprendimento’, Sissa, Trieste, Italy, 13-15 Jan 2009; SP)

- E. Bisesi (2008). *Musica, Ricerca ed Educazione* (XVIII Edizione delle giornate di diffusione della Cultura – Convegno in memoria di Paolo Bozzi, Udine University, Italy, 25 Feb 2008; LR)
- E. Bisesi (2007). *Science & Art Entanglement* ('Tribuna di Galileo', Museo di Storia Naturale – Sezione di Zoologia, Firenze, Italy, 22 Nov 2007; SP)
- G. B. Vicario & E. Bisesi (2007). *Rapporto tra musica ed emozioni* (XVII Edizione delle giornate di diffusione della Cultura, Udine University, Italy, 27 Mar 2007; SP)

PARTICIPATION IN INTERNATIONAL CONFERENCES

- Forthcoming (accepted): XVI Convegno di Analisi e Teoria Musicale, Rimini, Italy, 10-13 Oct 2019
 - o Talk: E. Bisesi, *Franz Liszt, Sonetto 104 del Petrarca: Analisi e interpretazione alla luce del rapporto tra musica e testo*
- MÚSICA ANALÍTICA 2019 – Porto International Symposium on the Analysis and Theory of Music, Porto, Portugal, 21-23 Mar 2019
 - o Talk: E. Bisesi, *Probing different theoretical approaches to music analysis in the empirical context of music performance: A case study on the Chopin Prelude in E minor*
- JAM 2018 – Journées d'Analyse Musicale de la SFAM, Conservatoire Darius-Milhaud, Aix-en-Provence, France, 23-24 Nov 2018
 - o Talk: E. Bisesi & S. Caron, *Analyse et interprétations des Dominos de François Couperin*
- XV Convegno di Analisi e Teoria Musicale, Rimini, Italy, 4-7 Oct 2018
 - o Lecture-Recital: E. Bisesi, *Analysis and interpretation of La Folia in relation with musical structure and meaning*
- KOMITAS: In the crossroads of tradition and modernity, Paris, France, 28 Sep 2018
 - o Talk: M. Navoyan & E. Bisesi, *The theoretical basis of Komitas's concept concerning Armenian secular and sacred music*
- XIV Convegno di Analisi e Teoria Musicale, Rimini, Italy, 28 Sep – 1 Oct 2017
 - o Talk 1: E. Bisesi, *How do music emotion and imagery depend on music structure and expression? An interdisciplinary study*
 - o Talk 2: A. Friberg, A. R. Addressi, M. Baroni & E. Bisesi, *Perceived accents in melodies: Computational, musicological, and perceptual issues*
 - o Lecture-Recital: S. Sargenti & E. Bisesi, *I preludi per pianoforte di Olivier Messiaen, tra rigore compositivo ed espressività*
- ISPS 2017 (6th International Symposium on Performance Science), Reykjavik, Iceland, 30 Aug – 2 Sep 2017
 - o Talk: E. Bisesi, A. Friberg, A. R. Addressi & M. Baroni, *A bottom-up model of immanent accent salience in Western art music*
- ESCOM 2017 (The 10th Conference of the European Society for the Cognitive Sciences of Music), Ghent, Belgium, 31 Jul – 4 Aug 2017
 - o Poster: Bisesi, E., & Toiviainen, P. *The relationship between musical structure and emotion in classical piano scores: A case study on the Theme of La Folia*
- EUROMAC9 (IX European Music Analysis Conference), Strasbourg, France, 28 Jun – 1 Jul 2017

- Talk: E. Bisesi, *Measuring and modelling perceived distance among collections in post-tonal music: Music theory meets music psychology*
- JAM 2016 – Journées d'Analyse Musicale de la SFAM, Dijon, France, 21-22 Nov 2016
 - Talk: E. Bisesi & S. Caron, *Partition, interprétation et perception du tempo*
- XIII Convegno di Analisi e Teoria Musicale, Rimini, Italy, 29 Sep – 2 Oct 2016
 - Talk: E. Bisesi, *Measuring and modeling perceived distance among collections in post-tonal music: A case study on Webern Canon op. 16 no. 2*
- Porto International Conference on Musical Gesture as Creative Interface, Porto, Portugal, 17-19 Mar 2016
 - Talk 1: E. Bisesi, *Historical changes in the imagery and gesture evoked by piano music: Schubert, Wagner, Liszt, Schoenberg*
 - Talk 2: S. Sargenti & E. Bisesi, *Communication of structure, gesture, emotion and imagery in different interpretations of Solo by Karlheinz Stockhausen*
- ÖGMw 2015 (Annual Conference of the Austrian Society for Musicology), Graz, Austria, 18-21 Nov 2015
 - Talk: E. Bisesi, *How does music expression depend on structure?*
- XII Convegno di Analisi e Teoria Musicale, Rimini, Italy, 24-27 Sep 2015
 - Talk 1: E. Bisesi, *In che modo l'espressività musicale dipende dalla struttura?*
 - Talk 2: S. Sargenti & E. Bisesi, *Solo di Karlheinz Stockhausen: Una proposta per l'analisi della performance*
- ICME 4 (4th International Conference on Music and Emotion), Geneva, Switzerland, 12-16 Oct 2015
 - Talk: E. Bisesi, M. Baroni, & R. Parncutt, *Historical changes in the emotions and free associations evoked by piano music: Schubert, Wagner, Liszt, Schoenberg*
- LIFE IN A COSMIC CONTEXT (5th Workshop of the Italian Astrobiology Society), Trieste, Italy, 15-17 Sep 2015
 - Talk: S. Ferluga & E. Bisesi, *Probabilities of Earth-like evolution by easy and hard steps*
- ESCOM 2015 (The 9th Triennial Conference of the European Society for the Cognitive Sciences of Music), Manchester, UK, 17-22 Aug 2015
 - Talk: E. Bisesi & R. Parncutt, *The relationship between immanent emotion and musical structure in classical piano scores*
- LIPS 2015 (London International Piano Symposium), London, UK, 13-15 Feb 2015
 - Lecture-Recital: E. Bisesi, *Sketching the piano music trajectory from Schubert and Liszt to expressionism in an emotion-based approach to music analysis*
- XI Convegno di Analisi e Teoria Musicale, Rimini, Italy, 23-25 Oct 2014
 - Talk: E. Bisesi, M. Baroni, R. Parncutt, & A. Fuchs, *Un approccio computazionale all'analisi comparata di aspetti armonici e tonali lungo l'arco della produzione pianistica di Schubert, Wagner, ultimo Liszt e primo Schoenberg*
- ICMP13 – APSCOM-5 (13th International Conference on Music Perception and Cognition and 5th Conference for the Asia-Pacific Society for Cognitive Sciences of Music), Seoul, South Korea, 4-8 Aug 2014
 - Talk 1: E. Bisesi, R. Parncutt, S. Caron, & C. Traube, *The immanent emotion of a musical score: An exploratory study*

- Talk 2: M. Bodinger, E. Bisesi, & R. Parncutt, *Listeners' informal vocabulary for structure, expression, emotions and associations in piano music*
- Talk 3: F. J. Eckl, E. Bisesi, A. Friberg, & R. Parncutt, *A computational model of immanent accent salience in tonal music: Perceptual evaluation*
- WPC 2014 (6th World Piano Conference), Novi Sad, Serbia, 27 Jun – 3 Jul 2014
 - Lecture-Recital: E. Bisesi, *Sketching the trajectory from Schubert and Liszt to Expressionism in an emotion-based approach to music analysis*
- Auditive Wissenskulturen: Das Wissen klanglicher Praxis, Graz, Austria, 18-21 Jun 2014
 - Lecture-Recital: E. Bisesi & R. Parncutt: *Wanderung, Verwandlung und Verklärung*
- Seminario di Analisi e Teoria Musicale, Conservatory of Latina, Italy, 23-24 May 2014
 - Talk: E. Bisesi, *Exploring piano styles in a cognitive approach to harmony*
- ISPS 2013 (4th International Symposium on Performance Science), Vienna, Austria, 28-31 Aug 2013
 - Talk and Recital: E. Bisesi, J. MacRitchie, & R. Parncutt, *Structural communication in piano duos: Musical compatibility and individual differences in interpretation*
- SMAC – SMC 2013 (10th Sound and Music Computing Conference), Stockholm, Sweden, 30 Jul - 3 Aug 2013
 - Talk: R. Parncutt, E. Bisesi, & A. Friberg, *A preliminary computational model of immanent accent salience in tonal music*
- Rencon 2013 (10th Competition of Music Performance Rendering for Computer Systems), Stockholm, Sweden, 30 Jun 2013
 - Poster: E. Bisesi, A. Friberg, & R. Parncutt, *A preliminary computational model of immanent accent salience in tonal music*
- ICME3 (3rd International Conference on Music and Emotion), Jyväskylä, Finland, 11-15 Jun 2013
 - Talk 1: E. Bisesi, M. Bodinger, & R. Parncutt, *Listeners' informal vocabulary for emotions and free associations in piano music*
 - Talk 2: E. Bisesi, F. J. Eckl, & R. Parncutt, *What emotions and free associations characterize different musical styles?*
- SEMPRE 40th Anniversary Celebration Event, Institute of Education, University of London, UK, 14-15 Sep 2012
 - Poster: E. Bisesi, A. Friberg, & R. Parncutt, *Using computational models of music performance to model stylistic variations*
- ICMPC – ESCOM 2012 (12th International Conference on Music Perception and Cognition), Thessaloniki, Greece, 23 -28 Jul 2013
 - Poster: E. Bisesi, J. MacRitchie, & R. Parncutt, *Recorded interpretations of Chopin's Preludes: Performer's choice of score events for emphasis and emotional communication*
- EUROMAC7 (VII European Music Analysis Conference), Roma, Italy, 29 Sep – 2 Oct 2011
 - Talk: E. Bisesi & R. Parncutt, *How do musical accents induce emotions?*
- ISPS 2011 (International Symposium on Performance Science), Toronto, Canada, 24-27 Aug 2011

- Talk: E. Bisesi, R. Parncutt, & A. Friberg, *An accent-based approach to performance rendering: Music theory meets music psychology*
- SMPC 2011 (12th meeting of the Society for Music Perception and Cognition), Rochester, NY, USA, 11-14 Aug 2011
 - Poster: E. Bisesi & R. Parncutt, *Expression in romantic piano music: Criteria for choice of score events for emphasis*
- RENCON 2011 (9th Competition of Music Performance Rendering for Computer Systems), Padova, Italy, 6 Jul 2011
 - Placement: 3rd position
 - Paper: Bisesi, E., Friberg, A., & Parncutt, R. (2011). *Director Musices (accent-based formulation)*
- KREATIVITÄT, STRUKTUR UND EMOTION (Kongress der Gesellschaft für Musiktheorie Hochschule für Musik), Würzburg, Germany, 7-10 Oct 2010
 - Poster: E. Bisesi & R. Parncutt, *An accent-based approach to music analysis*
- VITA10 (2nd Vienna Talk on Music Acoustics – ‘Bridging the Gaps’), Vienna, Austria, 19-21 Sep 2010
 - Talk: E. Bisesi & R. Parncutt, *An accent-based approach to automatic rendering of piano performance*
- AAPC2010 (9th Alps-Adria Psychology Conference), Klagenfurt, Austria, 16-18 Sep 2010
 - Talk: E. Bisesi, I. Gratton, & G. B. Vicario, *Can the tempo be exactly doubled?*
 - Poster: E. Bisesi, A. Odone, & N. Stucchi, *Self-recognition in music performance*
- ICMPC11 (11th International Conference on Music Perception and Cognition), Seattle, WA, USA, 23-27 Aug 2010
 - Talk: E. Bisesi & R. Parncutt, *The informal vocabulary of professional musicians for describing expression and interpretation*
- WHEN DARWIN MEETS COPERNICUS (3rd Workshop of the Italian Astrobiology Society), Duino, Italy, 26-28 May 2010
 - Talk: E. Bisesi, *How hard steps to rise intelligence?*
- CAIR10 (Conference on Applied Interculturality Research), Graz, Austria, 7-10 Apr 2010
 - Poster: E. Bisesi & B. Brabec de Mori, *The representation of time among different cultures and musical systems*
- CONGRESSINO DI MEDANA, Medana, Slovenia, 12-13 Jun 2009
 - Talk: E. Bisesi & G.B. Vicario, *L'effetto Brown in campo tonale*
- THE LIVING UNIVERSE (2nd Workshop of the Italian Astrobiology Society), Bologna, Italy, 28-30 May 2009
 - Talk: E. E. Bisesi, *Signatures of habitable worlds*
- SYSMUS1 (1st International Conference of Students of Systematic Musicology), Graz, Austria, 14-15 Nov 2008
 - Talk: E. Bisesi & G. B. Vicario, *Psychoacoustics aspects of the speed of melody performance*
- AAPC2008 (8th Alps-Adria Psychology Conference), Ljubljana, Slovenia, 2-4 Oct 2008
 - Talk: E. Bisesi & G. B. Vicario, *Psychoacoustics aspects of the speed of melody performance*
- XCIV Congresso Nazionale della Società Italiana di Fisica, Genova, 22-27 Sep 2008

- Talk: E. Bisesi, *Progettazione di una proposta curricolare sul suono e la musica nella scuola secondaria*
- GIREP 2008 (Physics Curriculum Design, Development and Validation), Nicosia, Cyprus, 18-22 Aug 2008
 - Talk 1: E. Bisesi & M. Michelini, *Planning curricular proposals on sound and music with perspective secondary-school teachers*
 - Talk 2: *Comparative teaching strategies in special relativity*
- CONGRESSINO DI MEDANA, Medana, Slovenia, 12-14 Jun 2008
 - Talk: E. Bisesi & G.B. Vicario, *Aspetti psicoacustici e musicologici sulla giusta velocità di esecuzione delle melodie*
- FFP9 – Ninth International Symposium on Frontiers of Fundamental and Computational Physics, Udine, Italy, 7-9 Jan 2008
 - Talk: E. Bisesi & M. Michelini, *Learning problems and improving strategies in special relativity education*
 - Poster: E. Bisesi & M. Persic, *The baryonic versus dark matter gamma-ray luminosity of star-forming galaxies*
- The Multi-Messenger Approach to High-Energy Gamma-Ray Sources – 3rd Workshop on the Nature of Unidentified High-Energy Sources, Barcelona, Spain, 4-7- Jul 2006
 - Poster: E. Bisesi, *The impact of subhalos on the signals from dark matter annihilation*
- XCI Congresso Nazionale della Società Italiana di Fisica, Catania, 26 Sep – 1 Oct 2005
 - Talk 1: E. Bisesi, *Dark matter detection with the MAGIC Telescope*
 - Talk 2: E. Bisesi, *Multiwavelength observations with the MAGIC Telescope*
 - Delegated presenter: P. Boinee, *Neural networks for gamma-hadron separation in MAGIC*
- The 29th International Cosmic Ray Conference (ICRC 2005), Pune, India, 3 – 10 Aug 2005
 - Participation in collaboration 1: H. Bartko et al., *Towards dark matter searches with the MAGIC Telescope*
 - Participation in collaboration 2: H. Bartko et al., *Search for gamma rays from the Galactic Center with the MAGIC Telescope*
- The Third Workshop on Science with the New Generation of High Energy Gamma-Ray Experiments, Udine, Italy, 30 May – 1 Jun 2005
 - Talk: E. Bisesi, *Populations of subhalos in Cold Dark Matter halos*
- FFP6 – Sixth International Symposium on Frontiers of Fundamental and Computational Physics, Udine, Italy, 26-29 Sep 2004
 - Poster 1: E. Bisesi, *Contribution of pulsars to the gamma-ray background and their observation with the space telescopes GLAST and AGILE*
 - Poster 2: E. Bisesi, M. Mariotti, & V. Scalzotto, *Dark matter detection in gamma astroparticle experiments*
 - Participation in collaboration: D. Bastieri et al., *The MAGIC experiment and its first results*

INVITED SEMINARS, LECTURES & LECTURE-RECITALS

- E. Bisesi (2019, forthcoming). *Variazioni sul tema della Follia di Carl Philipp Emanuel Bach e Franz Liszt: Analisi e interpretazione* (Fondazione Istituto Liszt Onlus, Bologna, Italy, 15.12.2019, lecture-recital (LR))
- E. Bisesi, J.A. Gonano & Elena Stolfo (2019). *La musica e le arti: Incontri con poesia e pittura* (Associazione Seghizzi, Gorizia, Italy, 13.7.2019; LR)
- E. Bisesi (2019). *Music as a science* (Club des Chercheurs, Collège Franco-Britannique, Paris, France, 7.3.2019, spoken presentation (SP))
- E. Bisesi (2017). *Measuring and modelling surprise in music: From biological systems to the anthropology of music cognition* (Institut Pasteur, Paris, France, 8.12.2017; SP)
- E. Bisesi, *Sketching the trajectories from Schubert and Liszt to Expressionism in an emotion-based approach to music analysis* (Štúdio 12, Bratislava, Slovakia, 13.6.2017; LR)
- E. Bisesi & S. Sargenti, *The musical theme of 'La Folia' at the crossing point of art, science and tradition* (Civica Scuola di Musica, Zibido San Giacomo (Milano), Italy, 20.5.2017; LR)
- E. Bisesi, *From Schubert to 20th-century Expressionism: An emotion-based approach to music analysis* (Liszt Academy of Music, Budapest, Hungary, 16.3.2017; LR)
- E. Bisesi, *How does music expression depend on structure?* (KTH-CSC, Stockholm, Sweden, 24.2.2017; SP)
- E. Bisesi, *Historical changes in the emotions and imagery evoked by piano music: Schubert, Wagner, Liszt, Schoenberg* (KTH-CSC, Stockholm, Sweden, 7.2.2017; SP)
- E. Bisesi, *Modeling performance styles in piano music* (Department of Information Engineering, Padova, Italy, 2.5.2016; SP)
- E. Bisesi, *How does music expression depend on structure?* (Comenius University, Bratislava, Slovakia, 4.4.2016; SP)
- E. Bisesi, *The tonal trajectory connecting Schubert, Wagner, Liszt and Schoenberg: A psychological, computer-based analysis* (Université de Montréal, Canada, 5.6.2015; LR)
- E. Bisesi, *How does music expression depend on structure?* (BRAMS – International Laboratory for Brain, Music, and Sound Research, Montreal, Canada, 29.5.2015; SP)
- E. Bisesi, *In che modo l'espressività musicale dipende dalla struttura?* (Casa della Musica, Como, Italy, 26.3.2015; SP)
- E. Bisesi, *How does music expression depend on structure?* (Ljubljana Music Academy, Slovenia, 24.11.2014; SP)
- E. Bisesi, *How does music expression depend on structure?* (Hebrew University of Jerusalem, Israel, 31.3.2014; SP)
- E. Bisesi, *Sketching the trajectory from Schubert and Liszt to Expressionism in an emotion-based approach to music analysis* (Van Leer Jerusalem Institute, Israel, 28.3.2014; LR)
- E. Bisesi, *How does music expression depend on structure?* (University of Tel Aviv & Buchman-Mehta School of Music, Tel Aviv, Israel, 27.3.2014; SP)
- E. Bisesi, *Sketching the trajectory from Schubert and Liszt to Expressionism in an emotion-based approach to music analysis* (University of Tel Aviv, Israel, 24.3.2014; LR)
- E. Bisesi & J. MacRitchie, *The sound of emotion* (Festsaal Meerscheinschlössl, Karl-Franzens-Universität, Graz, Austria, 13.1.2014; LR)

- E. Bisesi, *How does music expression depend on structure?* (Karl-Franzens-Universität, Graz, Austria, 27.5.2013; SP)
- E. Bisesi, *Expression, emotion and imagery in music performance* (Conservatorio della Svizzera Italiana, Lugano, Switzerland, 22.3.2013; SP)
- E. Bisesi & J. MacRitchie, *Measuring and modeling expression and emotion in piano performance* (Conservatorio della Svizzera Italiana, Lugano, Switzerland, 27.6.2012; SP)
- E. Bisesi & A. Friberg, *Modeling stylistic variations with Director Musices: An approach based on phrasing and accents* (KTH-CSC, Stockholm, Sweden, 12.6.2012; SP)
- E. Bisesi, A. Friberg, & R. Parncutt. *Analisi e modellizzazione computazionale dell'esecuzione musicale espressiva* (Fondazione Istituto Liszt Onlus, Bologna, Italy, 22.4.2012; SP)
- E. Bisesi, *Measuring and modeling expression in piano performance: Music theory meets music psychology* (Finnish Centre of Excellence in Interdisciplinary Music Research, University of Jyväskylä, Finland, 20.6.11; SP)
- E. Bisesi, *Riflessioni sul concetto di tempo tra scienza e musica* (Circolo Culturale "Tullio Crali", 23.11.2009; SP)
- E. Bisesi, *La vita tra le stelle* (Circolo Culturale "Tullio Crali", 26.3.2009; SP)
- E. Bisesi, *Sound, music and scientific education* (Institut für Physik, Karl-Franzens-Universität Graz, Austria, 3.4.2008; SP)
- E. Bisesi, *Psychoacoustic aspects on the speed in the performance of melodies* (Institut für Musikwissenschaft, Karl-Franzens-Universität Graz, Austria, 1.4.2008; SP)
- R. Bresin & E. Bisesi, *Acoustic cues and emotions in music performance* (KTH, Stockholm, 6.7.2007; SP)
- E. Bisesi, *The impact of subhalos on the signals from dark matter annihilation* (Udine University, Italy, 30.3.2006; SP)
- E. Bisesi, *The impact of subhalos on the signals from dark matter annihilation* (Stockholm University, Sweden, 8.3.2006; SP)
- E. Bisesi, *The impact of subhalos on the signals from dark matter annihilation* (Cold Dark Matter Meeting 2006, ETH, Zurich, Switzerland, 9.6.2006; SP)
- E. Bisesi, *Gamma rays from dark matter subhalos* (München, Germany, 23.7.2005; SP)
- E. Bisesi, *Observations of dark matter in the clumpy scenario* (Cold Dark Matter Meeting 2005, ETH, Zurich, Switzerland, 8.2.2005; SP)
- E. Bisesi, *Detectability of the neutralino clumps with the MAGIC Telescope* (MAGIC Bootcamp 2004, 20.5.2004; SP)
- E. Bisesi, *Search of dark matter in gamma-ray astrophysics* (Cold Dark Matter Meeting 2004, ETH, Zurich, Switzerland, 27.1.2004; SP)
- E. Bisesi, *Search of dark matter in gamma-ray astrophysics* (Padova University, Italy, 23.1.2004; SP)

REPERTOIRE (last 5 years)

Music: works (piano solo and chamber music with piano) by: A. Scarlatti, Rameau, C. P. E. Bach, Couperin, Corelli, Mozart, Haydn, Beethoven, Schubert (piano and piano transcriptions), Chopin, Liszt, Wagner (piano and piano transcriptions), Schumann, Dvořák, Rachmaninov, Glinka, Balakirev, Mussorgsky, Prokofiev, Scriabin, Messiaen, Schoenberg, Webern, Bartok, Bolling, Mercury, Catalani, Verdi, Bellini, Puccini.

Acting (in Italian): Guillaume de Lorris/Jean de Meung (1989), Edgar Allan Poe (1993), Oscar Wilde (1993), Luigi Pirandello (2000), Tito Lucrezio Caro (2003), Francesco Petrarca (1999), Dante Alighieri (2018), Thomas Mann (stage direction, 2019)

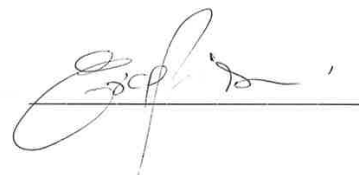
LINK TO LIVE PERFORMANCES

<https://www.youtube.com/channel/UCWw-E1t2t30xkJxZWV2ynYg>

CONTRIBUTIONS IN THE MEDIA (interviews)

- E. Litváková, *Nijaký počítač nedokáže to, čo človek, hovorí talianska muzikologička* – A computer cannot replace humans, says an Italian musicologist (in Slovak, *SME Plus*, 28.4.2017)
- O. Solon, *Rencon: a 'Turing Test for musical expression'* (in English, *Wired UK*, 2.9.2013)
- R. Czepel, *Eine Maschine kann den Künstler nicht ersetzen* – A machine cannot replace the artist (in German, *Der Standard*, 16.1.2013)
- L. Yadlapalli, *Der Klang der Gefühle* – The sound of emotions (in German, *Universum Magazine*, 7.11.2012)
- V. Prinčič, *Znanstvenica in pianistka na „begu“ v tujini* – Erica Bisesi is a known name in the musical and scientific circles (in Slovenian, *Primorski Dnevnik*, 21.1.2011)
- A. Pessotto, *Tra i cervelli in fuga anche la goriziana Erica* – In the brain drain also Erica from Gorizia (in Italian, *Il Piccolo*, 19.12.2010)

(updated on 30.08.2019)





UNIVERSITÀ DEGLI STUDI DI UDINE

REPUBBLICA ITALIANA

IN NOME DELLA LEGGE, NOI PROFESSOR FURIO HONSELL, RETTORE DELL'UNIVERSITÀ DEGLI STUDI DI UDINE,
VISTI GLI ATTI DEL COMPIMENTO DEL CORSO E IL RISULTATO DELL'ESAME FINALE SUPERATO IN QUESTA UNIVERSITÀ,
IL GIORNO 23 FEBBRAIO 2007 CONFERIAMO A

ERICA BISESI

NATA A GORIZIA IL GIORNO 15 DICEMBRE 1970

IL DOTTORATO DI RICERCA IN

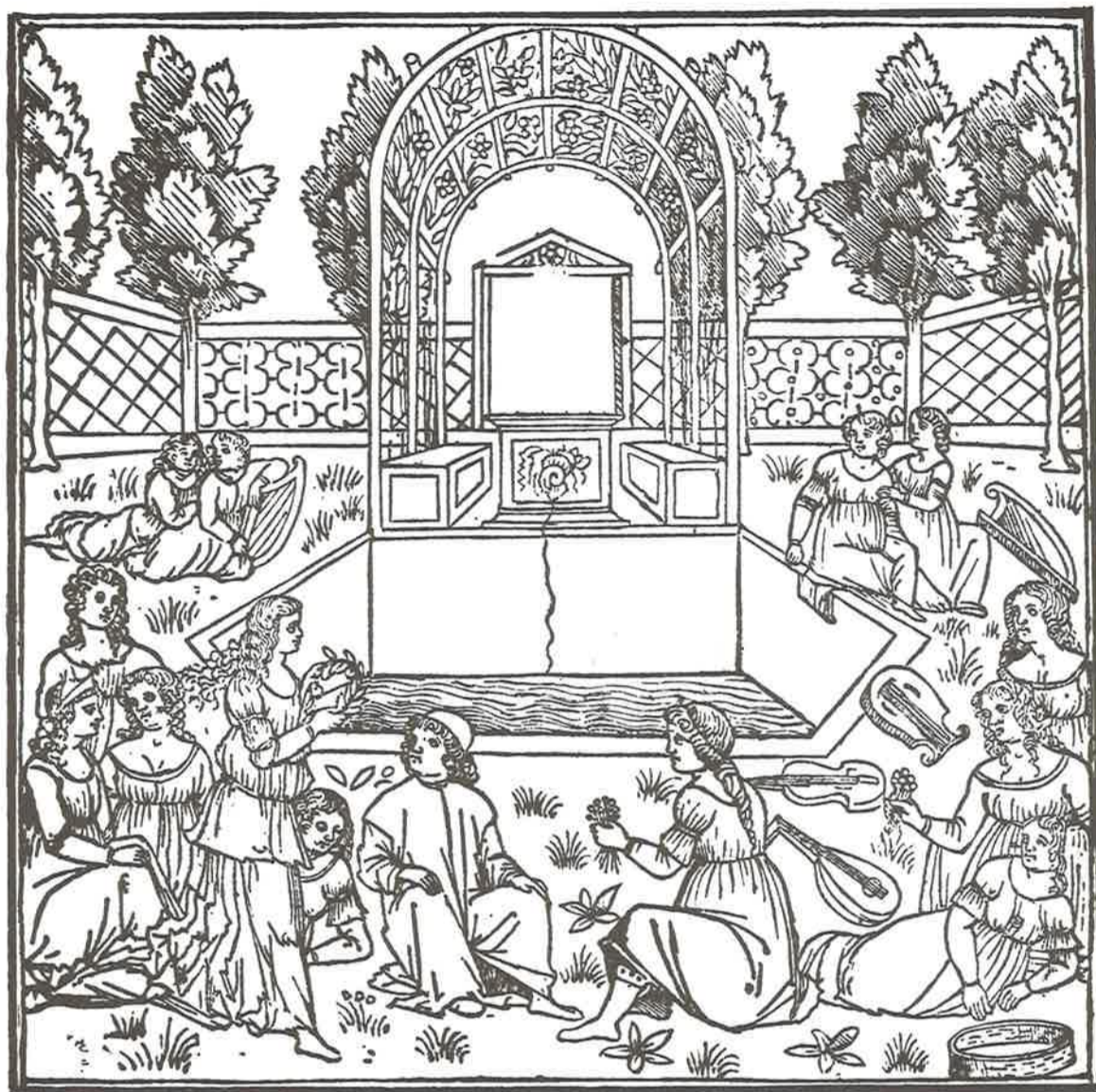
MATEMATICA E FISICA

IL PRESENTE ATTESTATO È VALIDO A TUTTI GLI EFFETTI DI LEGGE

IL DIRETTORE AMMINISTRATIVO

IL RETTORE
Furio Honsel

REPUBBLICA ITALIANA
MINISTERO DELLA PUBBLICA ISTRUZIONE



CONSERVATORIO DI MUSICA
"Giuseppe Tarfini"

Trieste

DI

DIPLOMA

Pianoforte

DI
Bisesi Erica

CONFERITO A
22 ottobre 1996

IL



IL DIRETTORE
Giorgio Zilberstein

Review

1. Scientific / scholarly success of the project

Contribution and importance of the work to the further development of the discipline, any importance for related disciplines (transdisciplinary questions and methods), quality of the dissemination of the results (publications, activities at conferences and so on)

Comments

This project explores the relationship between music structure and expression or emotional communication through a series of sub-projects involving diverse approaches to the topic (from empirical research through to the development of new approaches to the classification of music preferences and the application of new algorithms to investigate historical compositional trajectories. The research involved both quantitative and qualitative methods and attempts to incorporate more complex models thereby advancing knowledge in this field.

The results of this research were disseminated widely to important international conferences in the field, and through a series of publications (peer reviewed articles and book chapters) and lectures. The quality of the papers produced from this project is excellent as evidenced by the prestigious peer-refereed publications that have accepted this work.

2. Development of human resources in the course of the project

Improvement of the project leader's standing in the relevant scientific community; involvement of young researchers in the project work; development of international contacts

Comments

This project was a key milestone in the development of the lead researcher, Erica Bisesi. It also contributed to the research training and development of three Master's students and to the development of research collaborations with key researchers in the field.

3. Effects of the project beyond the research field

(in the sense of applications in or impacts on social, cultural, ecological, medical, economic and / or technological areas)

Comments

The project makes a valuable contribution to both music education and music performance by impacting on the understanding of performance expression in teaching and in musical practice. There were also attempts to bring an interdisciplinary approach to dissemination of this work, which is innovative and important for the work of knowledge mobilization in this field of study.

4. Project performance (in the sense of efficient use of available resources)

Were the goals achieved? Were the changes to the original plan sensible? What is the relation between the results obtained, the duration of the project and the resources available?

Comments

The project goals were achieved. The changes to the original plan in Year 2 were necessary and explained adequately. The project represents appropriate use of funds received and justification of the costs is adequate. There is evidence that the project objectives were met within the timeline proposed and that appropriate strategies for conducting the research activities resulted in the production of original and significant research findings.

5. Future perspectives of the research work

Should the topic be pursued or should the researchers involved be advised to switch their attention to a different area? What goals does the referee feel should be set for future work?

Comments

This project represents potential in terms of future funding and sustainability of plans beyond this development phase. A follow-up project is already being pursued and is likely to yield further valuable contributions to this field.